

IN THE CLAIMS

Please amend the claims as indicated:

1 – 10. (Cancelled)

11. (Currently amended) A resilient pressure pad for an electrochemical cell, the pressure pad comprising:

an electrically conductive planar member; and

a plurality of electrically conductive dimples disposed at a first surface of the planar member, the dimples being configured to impart resilience to the pressure pad in response to pressure variations within the cell; and

an elastomeric member disposed at the dimples.

12. (Original) The pressure pad of claim 11 wherein the dimples are semi-spherical in geometry.

13. (Original) The pressure pad of claim 12 wherein the dimples each comprise a stress point, the stress point defining a point at which the dimples collapse under pressure.

14. (Original) The pressure pad of claim 11 wherein the dimples are frusto-pyramidal in geometry.

15. (Cancelled)

16. (Currently amended) The pressure pad of claim 15 wherein the elastomeric member is disposed at the first surface of the planar member adjacent the dimples.

17. (Currently amended) The pressure pad of claim 15 wherein the elastomeric member is disposed at a second surface of the planar member, the second surface of the planar member being defined by an obverse surface of the planar member.

18. (Currently amended) The pressure pad of claim 15 1 wherein the elastomeric member is disposed within cavities defined by the dimples.

19. (Currently amended) The pressure pad of claim 15 1 wherein the elastomeric member is a fluorosilicone, a fluoroelastomer, or a combination thereof.

20. (Original) The pressure pad of claim 11 wherein the electrically conductive planar member is copper, silver, gold, chromium, zirconium, tantalum, titanium, niobium, iron, nickel, cobalt, hafnium, tungsten, alloys thereof, electrically conductive carbon, electrically conductive polymer, or combinations of the foregoing materials.

21. (Currently amended) The pressure pad of claim 15 1 further comprising an wherein the elastomeric member is threaded through the dimples.

22. (Original) The pressure pad of claim 11 wherein the pressure pad is disposed in fluid communication with an electrode in the electrochemical cell.

23. (Currently amended) A resilient pressure pad disposed in fluid communication with an electrode in an electrochemical cell, the pressure pad comprising:

an electrically conductive corrugated member; and

an elastomeric member disposed at the corrugated member.

24. (Cancelled)

25. (Currently amended) The pressure pad of claim 24 23 wherein the elastomeric member is positioned to extend longitudinally between two raised portions formed by a raised portion in the corrugated member.

26. (Currently amended) The pressure pad of claim 24 23 wherein the elastomeric member is threaded transversely through the raised portions in the corrugated member.

27. (Currently amended) The pressure pad of claim 24 23 wherein the elastomeric member is electrically conductive.

28. (Original) The pressure pad of claim 23 wherein the electrically conductive corrugated member is copper, silver, gold, chromium, zirconium, tantalum, titanium, niobium, iron, nickel, cobalt, hafnium, tungsten, alloys thereof, electrically conductive carbon, an electrically conductive polymeric material, or a combination of the foregoing materials.

29. (Currently amended) The pressure pad of claim 24 23 wherein the elastomeric member is a fluorosilicone, a fluoroelastomer, or a combination thereof.

30 – 54. (Cancelled)

55. (Previously Presented) An electrically-conductive compression pad suitable for use in an electrolysis cell stack, said electrically-conductive compression pad comprising:

a single sheet of electrically-conductive material, said single sheet of electrically-conductive material having a top surface and a bottom surface, said single sheet of electrically-conductive material being bent up and down to include a plurality of alternating ribs and channels; and

elastomeric material mounted within said channels, said elastomeric material being dimensioned so that, when said elastomeric material is compressed, said elastomeric material lies flush with said ribs and exerts substantially uniform pressure across each of said top surface and said bottom surface of said single sheet.

56. (Previously Presented) The electrically-conductive compression pad as claimed in claim 55 wherein said alternating ribs and channels are linear and parallel to one another.

57. (Previously Presented) The electrically-conductive compression pad as claimed in claim 55 wherein said single sheet of electrically-conductive material is a sheet of metal.

58. (Previously Presented) The electrically-conductive compression pad as claimed in claim 57 wherein said metal is selected from the group consisting of niobium, titanium, zirconium, tantalum, copper, nickel, steel and hastelloys.

59. (Previously Presented) The electrically-conductive compression pad as claimed in claim 57 wherein said metal is niobium.

60. (Previously Presented) The electrically-conductive compression pad as claimed in claim 55 wherein said elastomeric material is a rubber.

61. (Previously Presented) The electrically-conductive compression pad as claimed in claim 55 wherein said elastomeric material is a silicone.

62. (Previously Presented) The electrically-conductive compression pad as claimed in claim 55 wherein said single sheet of electrically-conductive material is circular in shape.

63. (Previously Presented) The electrically-conductive compression pad as claimed in claim 55 wherein said single sheet of electrically-conductive material is rectangular in shape.

64. (Cancelled)